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100 Years of General Relativity: What's next? JOHN LAUBEN-STEIN, Charitable Management Systems, Inc. — This year marks the 100th anniversary of General Relativity (GR). As this celebratory year draws to a close, the question that surfaces is what will come next? While universally recognized as a powerful theory, there are identifiable problems with GR. This suggests that a next generation theory of gravitation is inevitable. Whether this will require only modest adjustments to the current paradigm or a breakthrough concept in gravitation remains to be seen. For example, will all future endeavors in gravitation be strictly limited to metric theories of gravity? The almost unanimous response is, yes, all legitimate theories of gravity must be metric in nature. This presentation challenges that conventional notion by exploring the history of GR over the last century and providing evidence rooted in Special Relativity suggesting that we may need to maintain a more open mind regarding the future of gravitation theory.

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